



#### General

#### Guideline Title

Screening for and management of obesity in adults: U.S. Preventive Services Task Force recommendation statement.

### Bibliographic Source(s)

U.S. Preventive Services Task Force. Screening for and management of obesity in adults: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med. 2012 Sep 4;157(5):373-8. [15 references] PubMed

#### Guideline Status

This is the current release of the guideline.

This release updates a previously published guideline: Screening for obesity in adults: recommendations and rationale. Ann Intern Med 2003 Dec 2;139(11):930-2. [5 references]

# Recommendations

### Major Recommendations

The U.S. Preventive Services Task Force (USPSTF) grades its recommendations (A, B, C, D, or I) and identifies the levels of certainty regarding net benefit (High, Moderate, and Low). The definitions of these grades can be found at the end of the "Major Recommendations" field.

#### Summary of Recommendations and Evidence

The USPSTF recommends screening all adults for obesity. Clinicians should offer or refer patients with a body mass index (BMI) of 30 kg/m<sup>2</sup> or higher to intensive, multicomponent behavioral interventions. This is a B recommendation.

#### Clinical Considerations

Patient Population under Consideration

This recommendation applies to adults aged 18 years or older. The USPSTF uses the following terms to define categories of increased BMI: overweight is defined as a BMI of 25 to 29.9 kg/m², and obesity is defined as a BMI of 30 kg/m² or higher.

#### Interventions

The USPSTF found that the most effective interventions were comprehensive and were of high intensity (12 to 26 sessions in a year). Although the USPSTF could not determine the effectiveness of other specific intervention components, most of the higher-intensity behavioral interventions included multiple behavioral management activities, such as group sessions, individual sessions, setting weight-loss goals, improving diet or nutrition,

physical activity sessions, addressing barriers to change, active use of self-monitoring, and strategizing how to maintain lifestyle changes.

Weight-loss outcomes improved when interventions involved more sessions (12 to 26 sessions in the first year). Behavioral intervention participants lost an average of 6% of their baseline weight (4 to 7 kg [8.8 to 15.4 lb]) in the first year with 12 to 26 treatment sessions compared with little or no weight loss in the control group participants. A weight loss of 5% is considered clinically important by the U.S. Food and Drug Administration (FDA).

For obese patients with elevated plasma glucose levels, behavioral interventions decreased the incidence of diabetes diagnosis by about 50% over 2 to 3 years (number needed to treat, 7). Behavioral interventions also demonstrated some improvement in intermediate health outcomes, such as blood pressure, waist circumference, and glucose tolerance.

Interventions that combine pharmacologic agents (orlistat or metformin) with behavioral interventions resulted in weight loss and improvement in physiologic outcomes. Orlistat led to an average weight loss of about 2.6 kg (5.7 lb), a 1.9-cm decrease in waist circumference, and a decrease in fasting glucose level. However, there are concerns about the potential harms of orlistat because of recent U.S. Food and Drug Administration (FDA) reports of rare severe liver disease and a lack of long-term safety data. Metformin led to a 1.5-cm greater decrease in waist circumference; however, its use for obesity is not approved by the FDA and is thus considered an off-label use. In addition, sufficient data were lacking about the maintenance of improvement after discontinuation of medications. As a result, the USPSTF is unable to recommend medication use.

Results of trials were not stratified by BMI category, making it difficult to ascertain the certainty of benefit in overweight (BMI of 25 to 29.9 kg/m²) groups. Although some studies included overweight participants, the mean BMI across trials was in the obese range (≥30 kg/m²). Therefore, the USPSTF was unable to examine differential effects of interventions on both overweight and obese patients. However, the recommended interventions may also lead to weight loss in some overweight patients. Compared with that of obesity, less is known about the association of overweight and long-term health outcomes.

#### Screening Intervals

No evidence was found about appropriate intervals for screening.

#### **Definitions**:

What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Grade Definitions	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
В	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
С	Note: The following statement is undergoing revision. The USPSTF recommends selectively offering (or providing) this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service only if other considerations support offering or providing the service in an individual patient.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the "Clinical Considerations" section of USPSTF Recommendation Statement (see "Major Recommendations" field). If this service is offered, patients should understand the uncertainty about the balance of benefits and harms.

Definition: The USPSTF defines certainty as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as:  • The number, size, or quality of individual studies • Inconsistency of findings across individual studies • Limited generalizability of findings to routine primary care practice • Lack of coherence in the chain of evidence  As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:  The limited number or size of studies Important flaws in study design or methods Inconsistency of findings across individual studies Gaps in the chain of evidence Findings not generalizable to routine primary care practice A lack of information on important health outcomes  More information may allow an estimation of effects on health outcomes.

# Clinical Algorithm(s)

None provided

# Scope

Disease/Condition(s)

Obesity

Guideline Category

Counseling

Management

Prevention

Screening

# Clinical Specialty

Advanced Practice Nurses
Allied Health Personnel
Dietitians
Nurses
Physician Assistants

Psychologists/Non-physician Behavioral Health Clinicians

#### Guideline Objective(s)

Family Practice

Internal Medicine

Preventive Medicine

**Intended Users** 

Physicians

- To update the 2003 U.S. Preventive Services Task Force (USPSTF) recommendation statement on screening for obesity and overweight in adults
- To review new evidence on the benefits and harms of screening and primary care—feasible or referable nonsurgical weight-loss interventions

### **Target Population**

Adults aged 18 years or older

#### Interventions and Practices Considered

- 1. Screening for obesity
- 2. Referral to or offering patients with a body mass index (BMI) of 30 kg/m<sup>2</sup> or higher intensive multicomponent behavioral interventions

### Major Outcomes Considered

Key Question 1: Is there direct evidence that primary care screening programs for adult obesity or overweight improve health outcomes or result in short-term (12 to 18 mo) or sustained (>18 mo) weight loss or improved physiologic measures (i.e., glucose tolerance, blood pressure, and dyslipidemia)?

Key Question 1a: How well is weight loss maintained after an intervention is completed?

Key Question 2: Do primary care-relevant interventions (behaviorally based interventions and/or pharmacotherapy) in obese or overweight adults lead to improved health outcomes?

Key Question 2a: What are common elements of efficacious interventions?

Key Question 2b: Are there differences in efficacy between patient subgroups (i.e., ages 65 years or older, sex, race/ethnicity, degree of obesity, baseline cardiovascular risk)?

Key Question 3: Do primary care-relevant interventions in obese or overweight adults lead to short-term or sustained weight loss, with or without improved physiologic measures?

Key Question 3a: How well is weight loss maintained after an intervention is completed?

Key Question 3b: What are common elements of efficacious interventions?

Key Question 3c: Are there differences in efficacy between patient subgroups (i.e., ages 65 y or older, sex, race/ethnicity, degree of obesity, baseline cardiovascular risk)?

Key Question 4: What are the adverse effects of primary care-relevant interventions in obese or overweight adults (e.g., nutritional deficits, cardiovascular disease, bone mass loss, injuries, death)?

Key Question 4a: Are there differences in adverse effects between patient subgroups (i.e., ages 65 years or older, sex, race/ethnicity, degree of obesity, baseline cardiovascular risk status)?

# Methodology

#### Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

#### Description of Methods Used to Collect/Select the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Oregon Evidence-based Practice Center (EPC) for use by the U.S. Preventive Services Task Force (USPSTF) see the "Availability of Companion Documents" field).

Data Sources and Searches

EPC staff relied on existing reviews to cover part of the search window from the previous USPSTF review, following previously detailed guidance. A 2006 National Institute for Clinical Excellence systematic review on behavioral weight-loss interventions and orlistat and a 2008 review of metformin trials were identified. Their inclusion and exclusion criteria were congruent with those of the EPC's, and investigators for both searched multiple databases and examined reference lists of pertinent reports. The reviews' search and selection strategies were judged acceptable to substitute for those of the EPC's through 2005. EPC staff bridge-searched MEDLINE, PsycINFO, and the Cochrane Central Register of Controlled Trials from 2005 through 9 September 2010. The search was supplemented with relevant existing systematic reviews identified through databases (Cochrane Database of Systematic Reviews, the Database of Abstracts of Reviews of Effects, and MEDLINE) and Web sites (Institute of Medicine, National Institutes of Health, and National Institute for Health and Clinical Excellence). The searches were supplemented with experts' suggestions and reference lists from relevant publications, including evaluating all studies from the previous USPSTF review.

#### Study Selection

Two investigators independently reviewed 6498 abstracts and 648 articles against prespecified inclusion and exclusion criteria (see Appendix Figure 2 in the Evidence Review). For key questions 1 to 3, EPC staff included randomized or controlled clinical trials with interventions focused on weight loss in adults (age ≥18 years) conducted in settings relevant to primary care (studies conducted in primary care or those that could in theory be implemented in a health care system, to which primary care clinicians could refer patients). Criteria for acceptable control groups were defined a priori so that they would represent usual care and not overlap with low-intensity intervention groups. Acceptable control groups could not receive a personalized intervention, at-home workbook materials, or advice more frequently than annually; they also could not participate in frequent weigh-ins (<3 months). Healthy lifestyle messages were considered equivalent to weight-loss messages. For harms (key question 4), EPC staff included additional study designs (large cohort studies or case-control studies; large event monitoring; systematic evidence reviews of randomized, controlled trials or controlled clinical trials) and did not require 12 months of follow-up.

#### Number of Source Documents

Key Question 1: No trials could be identified comparing screening with not screening for adult obesity.

Key Question 2: 32 articles (15 trials)

Key Question 3:98 articles (58 trials)

Key Question 4: 60 articles (38 trials)

#### Methods Used to Assess the Quality and Strength of the Evidence

**Expert Consensus** 

Weighting According to a Rating Scheme (Scheme Given)

#### Rating Scheme for the Strength of the Evidence

Two independent investigators critically appraised all included articles using design-specific criteria (see Appendix B Table 2 in the Evidence review [see the "Availability of Companion Documents" field]) and U.S Preventive Services Task Force (USPSTF) methods. The USPSTF has defined quality ratings of "good," "fair," and "poor" based on specific criteria.

#### Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

### Description of the Methods Used to Analyze the Evidence

Note from the National Guideline Clearinghouse (NGC): A systematic evidence review was prepared by the Oregon Evidence-based Practice Center (EPC) for use by the U.S. Preventive Services Task Force (USPSTF) (see the "Availability of Companion Documents" field).

Data Extraction and Quality Assessment

Two independent investigators appraised all included articles as good, fair, or poor quality according to design-specific criteria and USPSTF methods. A third investigator resolved discrepancies. EPC staff assessed validity of randomization and measurement procedures, attrition, baseline characteristics, intervention fidelity, and statistical methods. Good-quality trials blinded researchers to participant randomization if they performed tasks related to assessment, had follow-up data on 90% or more of participants with fewer than a 10-percentage point difference between groups, and described anthropomorphic measurements in detail. Trials were rated poor quality and excluded if attrition was greater than 40%, was missing, or differed by more than 20% between groups (except for harms data); key baseline characteristics differed substantially between groups and were not controlled for in analyses; or outcomes were measured unequally between groups. Additional issues caused trials to be downgraded but not excluded; these included inconsistently applied interventions, selective reporting, and unclear or suboptimal blinding or randomization procedures. A table of excluded studies is available in the full evidence report.

For included studies, one investigator abstracted data on study design, setting, population characteristics, baseline health and weight, intervention characteristics, prespecified outcomes, funding source, and adverse events into standardized evidence tables. A second investigator reviewed abstraction for accuracy.

Data Synthesis and Analysis

Separate random-effects meta-analyses were conducted to estimate the effect size of behavioral and pharmacologic interventions on weight loss (expressed in kg) and intermediate health outcomes (adiposity, systolic and diastolic blood pressure, total cholesterol, high-density lipoprotein cholesterol, triglycerides, and glucose). Within each intervention type, trials were grouped according to the study population's risk status—cardiovascular risk (diabetes, dyslipidemia, hypertension), subclinical risk (prediabetes, borderline high lipids, prehypertension, abdominal obesity as defined by study researchers), and unselected/low risk—and then ordered by the behavioral intervention's intensity (number of sessions for behavioral trials and brief or intensive behavioral component accompanying medication trials).

The presence of statistical heterogeneity among studies was assessed by using standard chi-square tests and estimated heterogeneity magnitude by

using the  $l^2$  statistic. Tests of publication bias included funnel plots and the Egger linear regression method when there were 10 or more studies.

Heterogeneity of the effect size for weight loss was explored with a series of meta-regressions. Factors the researchers included were population risk status, recruitment strategy, retention, study focus (weight maintenance vs. loss), whether the trial was conducted in primary care, setting (United States or not), quality, and selected patient characteristics. For behavioral trials, investigators also examined the number of sessions during the first year and presence of several key intervention components. For medications, investigators also examined the percentage retained after runin, medication type, and intensity of accompanying behavioral intervention.

#### Methods Used to Formulate the Recommendations

**Balance Sheets** 

**Expert Consensus** 

#### Description of Methods Used to Formulate the Recommendations

The U.S. Preventive Services Task Force (USPSTF) systematically reviews the evidence concerning both the benefits and harms of widespread implementation of a preventive service. It then assesses the certainty of the evidence and the magnitude of the benefits and harms. On the basis of this assessment, the USPSTF assigns a letter grade to each preventive service signifying its recommendation about provision of the service (see Table below). An important, but often challenging, step is determining the balance between benefits and harms to estimate "net benefit" (that is, benefits minus harms).

Table 1. U.S. Preventive Services Task Force Recommendation Grid\*

Certainty of Net Benefit	Magnitude of Net Benefit			
	Substantial	Moderate	Small	Zero/Negative
High	A	В	С	D
Moderate	В	В	С	D
Low	Insufficient			

\*A, B, C, D, and I (Insufficient) represent the letter grades of recommendation or statement of insufficient evidence assigned by the U.S. Preventive Services Task Force after assessing certainty and magnitude of net benefit of the service (see the "Rating Scheme for the Strength of the Recommendations" field).

The overarching question that the USPSTF seeks to answer for every preventive service is whether evidence suggests that provision of the service would improve health outcomes if implemented in a general primary care population. For screening topics, this standard could be met by a large randomized, controlled trial (RCT) in a representative asymptomatic population with follow-up of all members of both the group "invited for screening."

Direct RCT evidence about screening is often unavailable, so the USPSTF considers indirect evidence. To guide its selection of indirect evidence, the USPSTF constructs a "chain of evidence" within an analytic framework. For each key question, the body of pertinent literature is critically appraised, focusing on the following 6 questions:

- 1. Do the studies have the appropriate research design to answer the key question(s)?
- 2. To what extent are the existing studies of high quality? (i.e., what is the internal validity?)
- 3. To what extent are the results of the studies generalizable to the general U.S. primary care population and situation? (i.e., what is the external validity?)
- 4. How many studies have been conducted that address the key question(s)? How large are the studies? (i.e., what is the precision of the evidence?)
- 5. How consistent are the results of the studies?
- 6. Are there additional factors that assist the USPSTF in drawing conclusions (e.g., presence or absence of dose–response effects, fit within a biologic model)?

The next step in the Task Force process is to use the evidence from the key questions to assess whether there would be net benefit if the service were implemented. In 2001, the USPSTF published an article that documented its systematic processes of evidence evaluation and recommendation development. At that time, the Task Force's overall assessment of evidence was described as good, fair, or poor. The Task Force realized that this rating seemed to apply only to how well studies were conducted and did not fully capture all of the issues that go into an overall assessment of the evidence about net benefit. To avoid confusion, the Task Force has changed its terminology. Whereas individual study quality will continue to be characterized as good, fair, or poor, the term *certainty* will now be used to describe the Task Force's assessment of the overall body of evidence about net benefit of a preventive service and the likelihood that the assessment is correct. Certainty will be determined by considering all 6 questions listed above; the judgment about certainty will be described as high, moderate, or low.

In making its assessment of certainty about net benefit, the evaluation of the evidence from each key question plays a primary role. It is important to note that the Task Force makes recommendations for real-world medical practice in the United States and must determine to what extent the evidence for each key question—even evidence from screening RCTs or treatment RCTs—can be applied to the general primary care population. Frequently, studies are conducted in highly selected populations under special conditions. The Task Force must consider differences between the general primary care population and the populations studied in RCTs and make judgments about the likelihood of observing the same effect in actual practice.

It is also important to note that one of the key questions in the analytic framework refers to the potential harms of the preventive service. The Task Force considers the evidence about the benefits and harms of preventive services separately and equally. Data about harms are often obtained from observational studies because harms observed in RCTs may not be representative of those found in usual practice and because some harms are not completely measured and reported in RCTs.

Putting the body of evidence for all key questions together as a chain, the Task Force assesses the certainty of net benefit of a preventive service by asking the 6 major questions listed above. The Task Force would rate a body of convincing evidence about the benefits of a service that, for example, derives from several RCTs of screening in which the estimate of benefits can be generalized to the general primary care population as "high" certainty (see the "Rating Scheme for the Strength of Recommendations" field). The Task Force would rate a body of evidence that was not clearly applicable to general practice or has other defects in quality, research design, or consistency of studies as "moderate" certainty. Certainty is "low" when, for example, there are gaps in the evidence linking parts of the analytic framework, when evidence to determine the harms of treatment is unavailable, or when evidence about the benefits of treatment is insufficient. Table 4 in the methodology document listed below (see the "Availability of Companion Documents" field) summarizes the current terminology used by the Task Force to describe the critical assessment of evidence at all 3 levels: individual studies, key questions, and overall certainty of net benefit of the preventive service.

Sawaya GF et al. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. Ann Intern Med. 2007;147:871-875. [5 references].

# Rating Scheme for the Strength of the Recommendations

What the U.S. Preventive Services Task Force (USPSTF) Grades Mean and Suggestions for Practice

Grade	Grade Definitions	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
В	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
С	Note: The following statement is undergoing revision. The USPSTF recommends selectively offering (or providing) this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service only if other considerations support offering or providing the service in an individual patient.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.

Grade Statement	The USPSTE concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is	Read the "Clinical Considerations" section of USPSTF Suggestions for Practice Recommendation Statement (see "Major
	lacking, of poor quality, or conflicting, and the balance of benefits	Recommendations" field). If this service is offered,
	and harms cannot be determined.	patients should understand the uncertainty about the
		balance of benefits and harms.

#### USPSTF Levels of Certainty Regarding Net Benefit

Definition: The USPSTF defines certainty as "likelihood that the USPSTF assessment of the net benefit of a preventive service is correct." The net benefit is defined as benefit minus harm of the preventive service as implemented in a general, primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

Level of Certainty	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by factors such as:
	The number, size, or quality of individual studies
	<ul> <li>Inconsistency of findings across individual studies</li> </ul>
	Limited generalizability of findings to routine primary care practice
	Lack of coherence in the chain of evidence
	As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of:
	The limited number or size of studies
	<ul> <li>Important flaws in study design or methods</li> </ul>
	<ul> <li>Inconsistency of findings across individual studies</li> </ul>
	Gaps in the chain of evidence  The state of the chain of evidence and the chain of evidence are the chain of evidence
	Findings not generalizable to routine primary care practice  A locals of information on important health outcomes.
	A lack of information on important health outcomes
	More information may allow an estimation of effects on health outcomes.

# Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

#### Method of Guideline Validation

Comparison with Guidelines from Other Groups

External Peer Review

Internal Peer Review

# Description of Method of Guideline Validation

Peer Review. Before the U.S. Preventive Services Task Force (USPSTF) makes its final determinations about recommendations on a given preventive service, the Evidence-based Practice Center and the Agency for Healthcare Research and Quality send a draft evidence review to 4 to 6 external experts and to Federal agencies and professional and disease-based health organizations with interests in the topic. The experts are asked to examine the review critically for accuracy and completeness and to respond to a series of specific questions about the document. After assembling these external review comments and documenting the proposed response to key comments, the topic team presents this information to the USPSTF in memo form. In this way, the USPSTF can consider these external comments before it votes on its recommendations about the service. Draft recommendation statements are then circulated for comment among reviewers representing professional societies, voluntary organizations, and Federal agencies, as well as posted on the Task Force Web site for public comment. These comments are discussed before the final recommendations are confirmed.

Response to Public Comment. A draft of this recommendation statement was posted for public comment on the USPSTF Web site from 26 October to 23 November 2011. All comments received were reviewed during the creation of the final recommendation statement. Specifically, responses to these comments led to clarification of the definition of "intensive" and "multicomponent" in the Clinical Considerations and Discussion sections. The Implementation section was expanded to reflect referral to community-based programs. The Recommendations of Others section was expanded to include recommendations from other professional associations. The Clinical Considerations section was expanded to clarify why overweight was not included in the recommendation statement. The Scope of the Review section was refined to clarify the scope of the update. Some respondents asked about costs. The USPSTF does not consider costs in its appraisal of the effectiveness of a service.

Recommendation of Others. Recommendations for obesity and overweight from the following groups were discussed: The National Institutes of Health, The Canadian Task Force on Preventive Health Care, The American Academy of Family Physicians, and The American Congress of Obstetricians and Gynecologists.

# **Evidence Supporting the Recommendations**

#### Type of Evidence Supporting the Recommendations

The type of supporting evidence is not specifically stated for each recommendation.

# Benefits/Harms of Implementing the Guideline Recommendations

#### **Potential Benefits**

Benefits of Detection and Early Intervention

The U.S. Preventive Services Task Force (USPSTF) found adequate evidence that intensive, multicomponent behavioral interventions for obese adults can lead to an average weight loss of 4 to 7 kg (8.8 to 15.4 lb). These interventions also improve glucose tolerance and other physiologic risk factors for cardiovascular disease.

The USPSTF found inadequate direct evidence about the effectiveness of these interventions on long-term health outcomes (for example, death, cardiovascular disease, and hospitalizations).

#### **Potential Harms**

Harms of Detection and Early Intervention

Adequate evidence indicates that the harms of screening and providing behavioral interventions for obesity are no greater than small.

Possible harms of behavioral weight-loss interventions include reduced bone mineral density and increased fracture risk, serious injuries resulting from increased physical activity, and an increased risk for eating disorders. Although limited data suggest that weight loss may be associated with decreased bone density at the hip, the clinical significance of the bone loss is uncertain. The trials found no evidence that weight-loss interventions are associated with serious injuries or an increased risk for eating disorders, weight cycling, or depression.

# **Qualifying Statements**

### **Qualifying Statements**

- The U.S. Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific clinical preventive services for patients without related signs or symptoms.
- It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.
- The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.

# Implementation of the Guideline

### Description of Implementation Strategy

The experiences of the first and second U.S. Preventive Services Task Force (USPSTF), as well as that of other evidence-based guideline efforts, have highlighted the importance of identifying effective ways to implement clinical recommendations. Practice guidelines are relatively weak tools for changing clinical practice when used in isolation. To effect change, guidelines must be coupled with strategies to improve their acceptance and feasibility. Such strategies include enlisting the support of local opinion leaders, using reminder systems for clinicians and patients, adopting standing orders, and audit and feedback of information to clinicians about their compliance with recommended practice.

In the case of preventive services guidelines, implementation needs to go beyond traditional dissemination and promotion efforts to recognize the added patient and clinician barriers that affect preventive care. These include clinicians' ambivalence about whether preventive medicine is part of their job, the psychological and practical challenges that patients face in changing behaviors, lack of access to health care or of insurance coverage for preventive services for some patients, competing pressures within the context of shorter office visits, and the lack of organized systems in most practices to ensure the delivery of recommended preventive care.

Dissemination strategies have changed dramatically in this age of electronic information. While recognizing the continuing value of journals and other print formats for dissemination, the USPSTF Task Force will make all its products available through its Web site \_\_\_\_\_\_\_\_. The combination of electronic access and extensive material in the public domain should make it easier for a broad audience of users to access USPSTF materials and adapt them for their local needs. Online access to USPSTF products also opens up new possibilities for the appearance of the annual, pocket-size *Guide to Clinical Preventive Services*.

To be successful, approaches for implementing prevention have to be tailored to the local level and deal with the specific barriers at a given site, typically requiring the redesign of systems of care. Such a systems approach to prevention has had notable success in established staff-model health maintenance organizations, by addressing organization of care, emphasizing a philosophy of prevention, and altering the training and incentives for clinicians. Staff-model plans also benefit from integrated information systems that can track the use of needed services and generate automatic reminders aimed at patients and clinicians, some of the most consistently successful interventions. Information systems remain a major challenge for individual clinicians' offices, however, as well as for looser affiliations of practices in network-model managed care and independent practice associations, where data on patient visits, referrals, and test results are not always centralized.

# Implementation Tools

Foreign Language Translations

Mobile Device Resources

Patient Resources

Pocket Guide/Reference Cards

# Institute of Medicine (IOM) National Healthcare Quality Report Categories

#### **IOM Care Need**

Getting Better

Staying Healthy

#### **IOM Domain**

Effectiveness

Patient-centeredness

# Identifying Information and Availability

# Bibliographic Source(s)

U.S. Preventive Services Task Force. Screening for and management of obesity in adults: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med. 2012 Sep 4;157(5):373-8. [15 references] PubMed

# Adaptation

Not applicable: The guideline was not adapted from another source.

#### Date Released

1996 (revised 2012 Jun 26)

# Guideline Developer(s)

U.S. Preventive Services Task Force - Independent Expert Panel

# Guideline Developer Comment

The U.S. Preventive Services Task Force (USPSTF) is a federally-appointed panel of independent experts. Conclusions of the USPSTF do not necessarily reflect policy of the U.S. Department of Health and Human Services (DHHS) or its agencies.

# Source(s) of Funding

United States Government

#### Guideline Committee

U.S. Preventive Services Task Force (USPSTF)

### Composition of Group That Authored the Guideline

Task Force Members\*: Virginia A. Moyer, MD, MPH, Chair (Baylor College of Medicine, Houston, Texas); Michael L. LeFevre, MD, MSPH, Co-Vice Chair (University of Missouri School of Medicine, Columbia, Missouri); Albert L. Siu, MD, MSPH, Co-Vice Chair (Mount Sinai School of Medicine, New York, and James J. Peters Veterans Affairs Medical Center, Bronx, New York); Linda Ciofu Baumann, PhD, RN (University of Wisconsin, Madison, Wisconsin); Kirsten Bibbins-Domingo, PhD, MD (University of California, San Francisco, San Francisco, California); Susan J. Curry, PhD (University of Iowa College of Public Health, Iowa City, Iowa); Mark Ebell, MD, MS (University of Georgia, Athens, Georgia); Glenn Flores, MD (University of Texas Southwestern, Dallas, Texas); Adelita Gonzales Cantu, RN, PhD (University of Texas Health Science Center, San Antonio, Texas); David C. Grossman, MD, MPH (Group Health Cooperative, Seattle, Washington); Jessica Herzstein, MD, MPH (Air Products, Allentown, Pennsylvania); Joy Melnikow, MD, MPH (University of California, Davis, Sacramento, California); Wanda K. Nicholson, MD, MPH, MBA (University of North Carolina School of Medicine, Chapel Hill, North Carolina); Douglas K. Owens, MD, MS (Veteran Affairs Palo Alto Health Care System, Palo Alto, and Stanford University, Stanford, California); Carolina Reyes, MD, MPH (Virginia Hospital Center, Arlington, Virginia); and Timothy J. Wilt, MD, MPH (University of Minnesota Department of Medicine and Minneapolis Veteran Affairs Medical Center, Minneapolis, Minnesota). Former USPSTF members who contributed to the development of this recommendation include Ned Calonge, MD, MPH, and George Isham, MD, MS

\*Members of the USPSTF at the time this recommendation was finalized. For a list of current Task Force members, go to http://www.uspreventiveservicestaskforce.org/Page/Name/our-members

#### Financial Disclosures/Conflicts of Interest

The U.S. Preventive Services Task Force (USPSTF) has an explicit policy concerning conflict of interest. All members disclose at each meeting if they have a significant financial, professional/business, or intellectual conflict for each topic being discussed. USPSTF members with conflicts may be recused from discussing or voting on recommendations about the topic in question.

#### Guideline Status

This is the current release of the guideline.

This release updates a previously published guideline: Screening for obesity in adults: recommendations and rationale. Ann Intern Med 2003 Dec 2;139(11):930-2. [5 references]

### Guideline Availability

Electronic copies: Available from the Annals of Internal Medicine Web site

### Availability of Companion Documents

The following are available:

Evidence Reviews:

- LeBlanc ES, O'Connor E, Whitlock EP, Patnode CD, Kapka T. Effectiveness of primary care—relevant treatments for obesity in adults: a systematic evidence review for the U.S. Preventive Services Task Force. Ann Intern Med 2003 Dec 2;139(11):933-949.
- LeBlanc E, O'Connor E, Whitlock EP, Patnode C, Kapka T. Screening for and management of obesity and overweight in adults. Evidence Report No. 89. AHRQ Publication No. 11-05159-EF-1. Rockville, MD: Agency for Healthcare Research and Quality; October 2011.

Electronic copies: Available from the U.S. Preventive Services Task Force (USPSTF) Web site

Background Articles:

- Barton MB et al. How to read the new recommendation statement: methods update from the U.S. Preventive Services Task Force. Ann Intern Med 2011;155:434-447.
- Guirguis-Blake J et al. Current processes of the U.S. Preventive Services Task Force: refining evidence-based recommendation

development. Ann Intern Med 2007;147:117-122. • Sawaya GF et al. Update on the methods of the U.S. Preventive Services Task Force: estimating certainty and magnitude of net benefit. Ann Intern Med 2007;147:871-875. Electronic copies: Available from U.S. Preventive Services Task Force (USPSTF) Web site The following are also available: Screening for and management of obesity in adults. Clinical summary of U.S. Preventive Services Task Force Recommendations. Rockville (MD): Agency for Healthcare Research and Quality; 2012 Jun. Electronic copies: Available from the USPSTF Web Site • The guide to clinical preventive services, 2010-2011. Recommendations of the U.S. Preventive Services Task Force. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ), 2010. 292 p. Electronic copies available from the AHRQ Web site . See the related QualityTool summary on the Health Care Innovations Exchange Web site The Electronic Preventive Services Selector (ePSS) , available as a PDA application and a web-based tool, is a quick hands-on tool designed to help primary care clinicians identify the screening, counseling, and preventive medication services that are appropriate for their patients. It is based on current recommendations of the USPSTF and can be searched by specific patient characteristics, such as age, sex, and selected behavioral risk factors. Patient Resources

The following are available:

	Screening for and management of obesity in adults. Understanding Task Force recommendations. U.S. Preventive Services Task Force. Consumer fact sheet. 2012 Jun. 3 p. Electronic copies: Available from the U.S. Preventive Services Task Force Web site
• '	Women: stay healthy at any age. Rockville (MD): Agency for Healthcare Research and Quality. AHRQ Pub. No. 10-IP002-A. 2010 Aug
,	2 p. Electronic copies: Available in Portable Document Format (PDF) in English and Spanish
	from the AHRQ Web site. See the related QualityTool summary on the Health Care Innovations Exchange Web
5	site
• ]	Men: stay healthy at any age. Rockville (MD): Agency for Healthcare Research and Quality. AHRQ Pub. No. 10-IP004-A. 2010 Aug. 2
1	p. Electronic copies: Available in PDF in English and Spanish from the AHRQ Web sit
,	See the related QualityTool summary on the Health Care Innovations Exchange Web site
	opies: Available in English and Spanish from the Agency for Healthcare Research and Quality (AHRQ) Publications Clearinghouse. For information, go to http://www.ahrq.gov/research/publications/index.html or call (U.S. only).
	Ithfinder is a new tool that provides personalized recommendations for clinical preventive services specific to the user's age, gender, and
•	ncy status. It features evidence-based recommendations from the USPSTF and is available at www.healthfinder.gov
pregna	

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

#### NGC Status

This summary was completed by ECRI on June 30, 1998. The information was verified by the guideline developer on December 1, 1998. This summary was updated by ECRI on November 1, 2003. The updated information was verified by the guideline developer on November 2, 2003. This summary was updated by ECRI Institute on August 3, 2012. The updated information was verified by the guideline developer on August 23, 2012.

### Copyright Statement

Requests regarding copyright should be sent to: Lisa S. Nicolella, Senior Editor, Office of Communications and Knowledge Transfer, Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850; E-mail: lisa.nicolella@ahrq.hhs.gov.

# Disclaimer

#### NGC Disclaimer

The National Guideline Clearinghouseâ, ¢ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at http://www.guideline.gov/about/inclusion-criteria.aspx.

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.